Remarks

Initially, Applicants would like to thank the Examiner for the allowance of claims 14 and 15, and for the careful review of the Application. Claims 1-45 are pending in the present application. By this Amendment, claims 1-8 and 16-45 are canceled. Through the foregoing amendments and the following remarks, Applicants have addressed all points raised by the Examiner.

Election/Restriction Requirement

Previously presented claims 1-45 were subject to a restriction requirement. In the Office Action dated June 4, 2003, the Examiner referred to the seven figures as containing seven patentably distinct species. Applicants provisionally elected, with traverse, the species shown in FIG. 6. Those claims reading on FIG. 6 include claims 9-15. Applicants hereby affirm the election of claims 9-15, reading on FIG. 6 and cancel claims 1-8 and 16-45.

Drawings

The Examiner objected to the drawings as failing to comply with 37 C.F.R. 1.83(a) because they fail to show how the first and the second socket could receive either a fuse or a circuit breaker so that it is connected to the three alarm connections as described in the specification. Applicants respectfully disagree. FIGS. 1-7 are directed to a protection and alarm configuration for a power distribution bus. Each figure shows only two sockets and two corresponding distribution lines for clarity purposes. Each socket may have three alarm connections as seen in FIGS. 1-7. One alarm connection is used when a fuse is inserted into a socket. This embodiment is clearly illustrated in FIGS. 1 and 3. For example, referring to FIG. 1, fuse 101 is represented by a broken line connecting terminals 106 and 108. Because fuse 101 is inserted into socket 102, rather than a circuit breaker, alarm connection 116 is used to connect to an alarm circuit interface 130, while alarm connections 114 and 118 are unused.

FIGS. 2 and 4 represent the same sockets used in FIGS. 1 and 3, only with circuit breakers inserted into the sockets, rather than fuses. For example, FIG. 2 shows the structure of circuit breaker 201, and illustrates how current flows from voltage source 246

to alarm circuit 234 through alarm connections 218 and 214 when the circuit breaker is tripped. FIGS. 5-7 show protection and alarm configurations using two sockets that may have either a fuse or circuit breaker inserted within. Because the structure of a fuse and the detail of how a fuse is connected to an alarm circuit through a single alarm connection is clearly shown in FIGS. 1 and 3, and because the structure of a circuit breaker and the detail of how a circuit breaker is connected to an alarm circuit using two alarm connections is clearly shown in FIGS. 2 and 4, it is not necessary to duplicate the socket structural detail shown in FIGS. 1-4 within FIGS. 5-7.

Since fuses and circuit breakers may be used interchangeably in the sockets shown in FIGS. 5-7, and particularly since the structural details of the fuse and circuit breaker coupling to the three alarm connections are clearly depicted in FIGS. 1-4, the sockets of FIGS. 5-7 are more clearly shown without that detail. If the Applicants were to amend the sockets of FIGS. 5-7 to show the structural detail of both fuses and circuit breakers, the illustration might mislead the reader into thinking that both a fuse and a circuit breaker must be used simultaneously within a single socket of the present invention. Accordingly, Applicants respectfully request that the Examiner withdraw the objection.

Additionally, the Examiner objected to the drawings because "boxes" in the figures are not labeled. Applicants submit that all of the "boxes" in the figures are labeled with reference numbers and properly described in the specification. If there is a requirement that has been overlooked, the Applicants respectfully request that the Examiner point out the specific figure and "box" that requires correction, as well as the applicable regulation.

Applicants have amended FIGS. 6 and 7 to add reference characters 600 and 700 that refer to protection and alarm configurations 600 and 700 respectively that are described on pages 16 and 17 in the specification. Reference characters 600 and 700 were inadvertently omitted from the original drawings as filed. Applicants submit that the above drawing amendments are supported by the specification and do not introduce new matter. Please see the drawing amendments on the separate sheets as required by 37 C.F.R. §1.121.

Claim Rejections - 35 U.S.C. §102

35 U.S.C. §102(b) - Crawford et al.

The Examiner rejected claims 9-13 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,986,558 to Crawford et al. (hereinafter "Crawford"). The Examiner stated that Crawford discloses a method of employing fuses and circuit breakers interchangeably with a power distribution bus and alarm connections. The Applicants respectfully disagree. Independent claim 9 of the present invention recites inserting a fuse with an alarm connector in a first location connected to a power distribution bus, inserting a circuit breaker with a pair of alarm connectors in a second location connected to the bus, inhibiting a response from a first alarm circuit electrically linked to the first location until the fuse is blown, and inhibiting a response from a second alarm circuit electrically linked to the second location until the circuit breaker is tripped.

Crawford is directed to a modular precharge circuit, as shown in FIG. 5, which is designed to be placed in either the fuse module or the circuit breaker module of the power distribution system shown in FIG. 1. The purpose of the modular precharge circuit is to absorb inrush current drawn by the capacitors in the downstream equipment when the circuit is completed, therefore protecting the fuse or circuit breaker that is to be introduced into the circuit.

FIG. 4 of Crawford depicts the internal circuitry of the modular precharge circuit shown in FIG. 5. This precharge circuit comprises one alarm circuit. This alarm circuit is linked to the fuse located in the modular precharge circuit. This fuse is not interchangeable with a circuit breaker. When the fuse enters an open state, it must be replaced with another fuse of the same type and rating (column 4, lines 46-49). Therefore, in sum, Crawford comprises a power distribution system wherein fuses and circuit breakers may be interchanged, and additionally, a precharge circuit that comprises one fuse linked to one alarm circuit wherein the precharge circuit may be placed in a fuse or circuit breaker module of the power distribution system.

Crawford does not teach, suggest, or describe a second alarm circuit or a circuit breaker electronically linked to an alarm circuit. Even though Crawford does not describe doing so, if a circuit breaker were inserted into the power distribution system of

Crawford in a second location while a modular precharge circuit, which includes a fuse and alarm circuit, was inserted into a first location of the power distribution system, there would still not be a second alarm circuit electrically linked to the circuit breaker.

In order for the power distribution system of Crawford to achieve a second alarm circuit connected to a power distribution bus, as recited in claim 9 of the present invention, a second modular precharge circuit would have to be inserted into a second location, while a first modular precharge circuit is in a first location, which Crawford does not teach, suggest, or describe. Even if this was done, there would still be no circuit breaker electrically linked to an alarm circuit since the alarm circuit taught by Crawford is linked to the fuse within the modular precharge circuit. There are no permutations of Crawford that allow for inserting a fuse with an alarm connector in a first location connected to a power distribution bus, inserting a circuit breaker with a pair of alarm connectors in a second location connected to the bus, inhibiting a response from a first alarm circuit electrically linked to the first location until the fuse is blown, and inhibiting a response from a second alarm circuit electrically linked to the second location until the circuit breaker is tripped. Accordingly, independent claim 9 is allowable over Crawford.

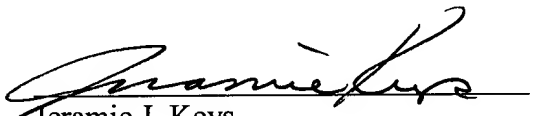
Applicants submit that dependent claims 10-13 are allowable at least because they further limit allowable claim 9. Additionally, because Crawford does not teach, suggest, or describe an alarm circuit electrically linked to a location in a power distribution system for responding to a tripped circuit breaker, dependent claim 10 is allowable over Crawford. Because Crawford does not show two circuit breakers, where each circuit breaker inhibits a response from two individual alarm circuits, claim 13 is allowable over Crawford. Accordingly, dependent claims 10-13 are allowable over Crawford.

Conclusion

For at least these reasons, Applicants assert that pending claims 9-13 and previously allowed claims 14 and 15 are in condition for allowance. Applicants further assert that this response addresses each and every point of the Office Action, and respectfully requests that the Examiner pass this application with claims 9-15 to allowance. Should the Examiner have any questions, please contact Applicants' undersigned attorney at 404.954.5100.

Respectfully submitted,
MERCHANT & GOULD

Date: December 11, 2003



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